WHAT IS CLAIMED IS:

1. A method for continuously producing 3,3',5,5'-tetra-t-butyl-4,4'-biphenol by oxidizing/dimerizing 2,6-di-t-butylphenol, comprising the steps of:

supplying 2,6-di-t-butylphenol to a first reaction section of a reaction apparatus in which at least the first reaction section and a second reaction section are connected in series;

supplying alkali catalyst to at least said first reaction section; and

distributing oxygen containing gas to each reaction section respectively; whereby a reaction mixture containing 3,3',5,5'-tetra-t-butyl-4,4'-biphenol is obtained from a last reaction section.

2. The method as recited in Claim 1, wherein the reaction apparatus comprises a first step reaction area including the first reaction section and a latter step reaction area including at least one reaction section, and reaction temperature in the latter step reaction area is higher than that in the first step reaction area.

3. The method as recited in Claim 1, wherein said each reaction section is formed by independent reactors.

4. The method as recited in Claim 1, wherein said each reaction section is formed by dividing an interior of a single reactor into plural sections.

5. The method as recited in Claim 1, wherein the number of reaction sections in said reaction apparatus is from two to five.

6. The method as recited in Claim 1, wherein the oxygen containing gas is continuously distributed to the first and second reaction sections and other subsequent reaction sections.

7. The method as recited in Claim 1, wherein the oxygen containing gas is air.

8. The method as recited in Claim 1, wherein 55-85% of the oxygen containing gas to be used is supplied to the first reaction section and the remaining volume of the gas is supplied to the second and its subsequent reaction section.

9. The method as recited in Claim 1, wherein the alkali catalyst is continuously and separately supplied to each of the first and second reaction sections and other subsequent reaction sections.

10. The method as recited in Claim 1, wherein more than 50% of the alkali catalyst to be used is supplied to the first reaction section and the remaining alkali catalyst is supplied to the second and other subsequent reaction sections.

11. The method as recited in Claim 1, wherein the alkali catalyst is alkali metallic hydroxide.

12. The method as recited in Claim 2, wherein the reaction temperature in the latter step reaction area is 170-200°C.

13. The method as recited in Claim 2, wherein the reaction temperature in the latter step reaction area is higher by 0-30°C than that of the first step reaction area.